

## North Coast Regional Water Quality Control Board

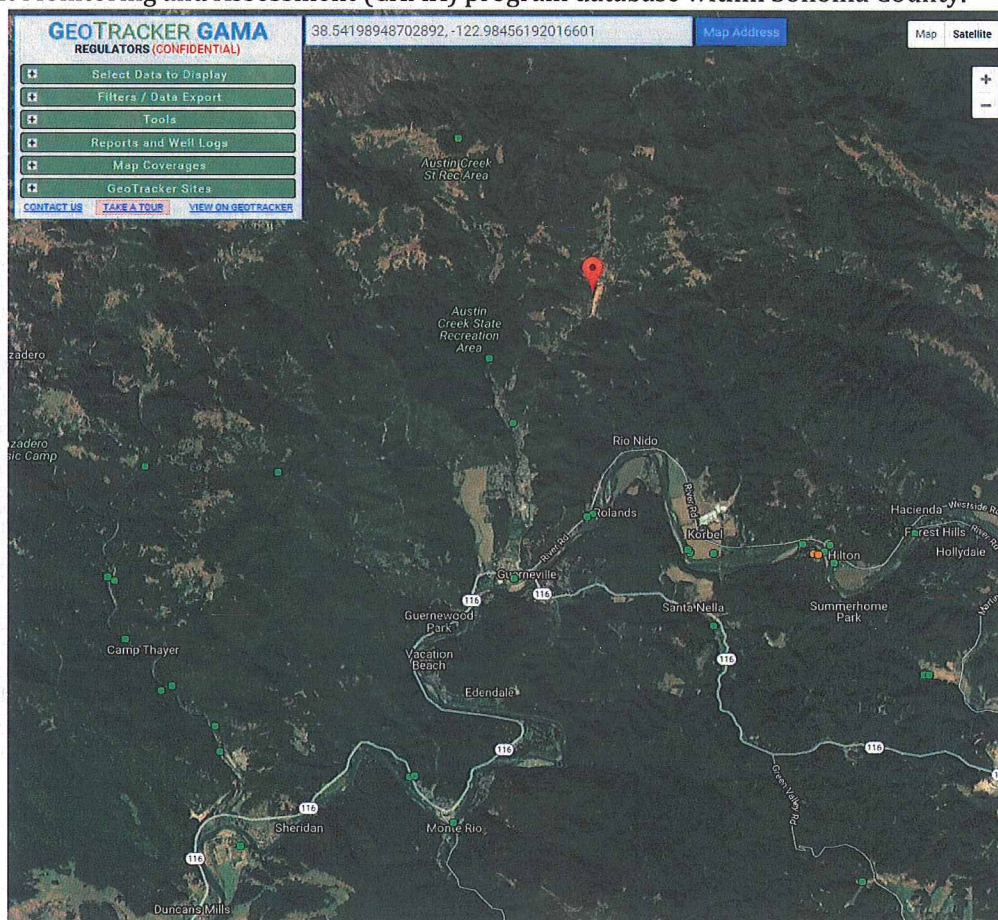
**TO:** Claudia Villacorta, Supervising Water Resources Control Engineer  
Groundwater Protection and Point Source Control Division

**FROM:** Jeremiah Puget, Senior Environmental Scientist, Groundwater Specialist  
Groundwater Protection and Point Source Control Division

**DATE:** November 18, 2016

**SUBJECT:** Groundwater Data for Mercury in Guerneville / Sonoma County

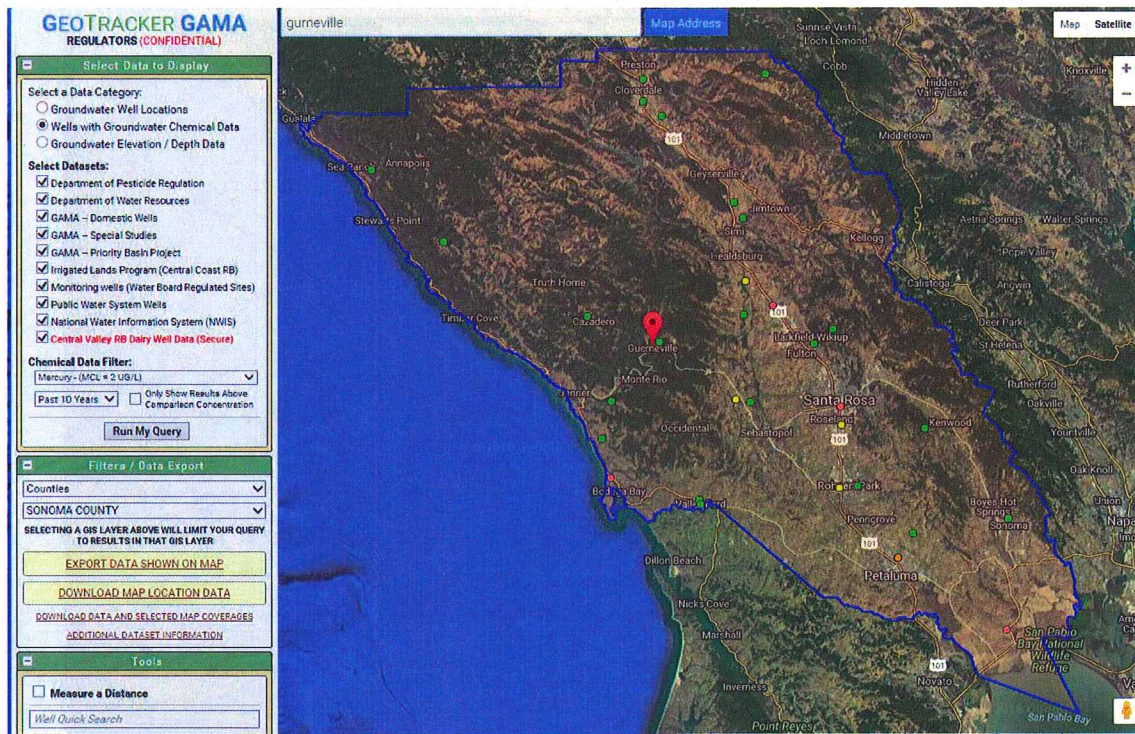
This memo contains a summary of the mercury data available in the GeoTracker/Groundwater Ambient Monitoring and Assessment (GAMA) program database within Sonoma County.



The red pin shows the approximate location of the Mt. Jackson mine. All of the dots are all the available data points (public water supply wells, monitoring wells, & GAMA special studies).



- There have been no detections of mercury in any of the samples collected downstream or down-gradient of the mine.
- Dozens of samples have been collected between 1985 and 2016.
- The closest down-gradient wells are two public water supply wells for Armstrong Redwood State Park.
  - These wells have been sample 16 times between 1985 and 2014 and all results were non-detect for Mercury.
- The orange dots by Hilton are the only two detections of mercury in groundwater in the database within a five mile radius of the mine. These wells are up-gradient/up-stream of the mine.
  - One well had been sampled in 1991, 1994, 1997, 2000, and 2006. The 1994 sample result was 1.3 micrograms per liter ( $\mu\text{g/L}$ ). All other samples were non-detect.
  - The other well was sampled 10 times between 1987 and 2015. In 1994 there was a result of 1.1  $\mu\text{g/L}$ . All other samples were non-detect.
  - The State and Federal Maximum Contaminant Level for inorganic mercury is 2  $\mu\text{g/L}$ . The California Public Health Goal is 1.2  $\mu\text{g/L}$ .



The image above shows mercury sample locations in Sonoma County within the past 10 years.

- 1,943 samples have been collected in the past 10 years with 12 positive detections.
- Mercury was detected once in two separate water supply wells in Petaluma and Bodega Bay at concentrations of 2.3  $\mu\text{g/L}$  and 2.0  $\mu\text{g/L}$ , respectively.
- Mercury was also detected at cleanup sites in Windsor and Santa Rosa at concentrations ranging from 1.3  $\mu\text{g/L}$  to 7.3  $\mu\text{g/L}$ ; however, these are isolated and anomalous detections without any type of trends.
- There is one active groundwater cleanup investigation in Santa Rosa Plain that has had several mercury detections at concentrations that range from 1.1  $\mu\text{g/L}$  to 2.2  $\mu\text{g/L}$ .